

THE EFFECT OF ORGANIZATIONAL COMMITMENT AND SUPERVISION ON OHS CULTURE WITH OHS RISK PERCEPTION AS AN INTERVENING VARIABLE AT PT.PLN (PERSERO) ULP TANAH JAWA

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ABSTRACT

This study aims to analyze the effect of organizational commitment and supervision on occupational safety and health (OSH) culture with OSH risk perception as an intervening variable among employees of PT PLN (Persero) ULP Tanah Jawa. This research employed a quantitative approach using a survey method. The population consisted of all employees, with a total sample of 57 respondents selected using a saturated sampling technique. Data were collected through questionnaires and analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM). The results show that organizational commitment has a positive and significant effect on OSH culture and OSH risk perception. Supervision has a positive and significant effect on OSH risk perception but does not have a significant direct effect on OSH culture. Furthermore, OSH risk perception has a positive and significant effect on OSH culture. In addition, OSH risk perception is proven to mediate the effect of organizational commitment and supervision on OSH culture. These findings indicate that improving OSH culture at PT PLN (Persero) ULP Tanah Jawa should focus on strengthening organizational commitment, enhancing consistent supervision, and increasing employees' OSH risk perception.

Introduction

Occupational Safety and Health (OHS) is an important aspect that must be a primary concern in every company's operational activities, particularly in the electricity sector, which has a high level of occupational risk. PT PLN (Persero), as a state-owned company engaged in the provision of electricity, has a significant responsibility to ensure the safety of all employees, partners, and the community around the work area. The implementation of a good OHS culture not only aims to prevent workplace accidents and occupational diseases, but also becomes part of the company's strategy to improve productivity, efficiency, and the organization's image in the public eye. However, in practice, various

problems are still found related to the implementation of OHS in the work environment, including in the PT PLN (Persero) ULP Tanah Jawa unit. These problems include the persistence of unsafe behavior (unsafe actions), poorly organized work environment conditions, and a level of concern for safety procedures that is not yet fully optimal. This condition indicates that the OHS culture has not been fully internalized by every individual in the company.

One factor influencing the successful implementation of an OHS culture is organizational commitment . Organizational commitment reflects the extent to which leaders and all members of the organization are determined and responsible for implementing occupational safety and health values in all activities. Organizations with a strong commitment to OHS will provide adequate resources, implement clear policies, and foster collective awareness of safe behavior in the workplace. Without a strong commitment from management and employees, various OHS programs will not be effective. In addition to organizational commitment, supervision also plays a crucial role in fostering a positive OHS culture. Consistent and targeted supervision can ensure that all workers comply with safe work procedures and applicable operational standards. Good supervision is not only a control measure but also a coaching tool that can encourage behavioral changes toward safer behavior. Thus, supervision can be a tool to strengthen the implementation of OHS policies in the field and reduce the occurrence of occupational safety violations.

On the other hand, individual perceptions of occupational risks are also important factors that can mediate the relationship between organizational commitment, supervision, and OHS culture. OHS risk perception describes how an individual assesses the potential hazards and consequences of their work activities. When risk perception is high, individuals tend to be more cautious and comply with safety regulations. Conversely, low risk perception often leads to a disregard for occupational hazards. Therefore, risk perception can be a key variable mediating the influence of organizational policies and supervision on the formation of a strong OHS culture. Previous studies have shown that organizational commitment has a positive effect on the implementation of an OHS culture (Zulfiquar et al., 2021; Nuraini, 2022), and effective supervision also contributes to increased OHS awareness in the workplace (Rahmadani & Arifin, 2020). Furthermore, risk perception has been shown to act as a psychological factor that can strengthen the relationship between organizational policies and employee safety behavior (Setiawan, 2021). However, to date, research that specifically examines the relationship between organizational commitment, supervision, OHS culture, and OHS risk perception as intervening variables in the PT PLN (Persero) environment, especially in the Tanah Jawa Customer Service Unit (ULP), is still very limited. Based on these conditions, it is necessary to conduct more in-depth research on the influence of organizational commitment and supervision on OHS culture with OHS risk perception as an intervening variable in PT PLN (Persero) ULP Tanah Jawa . This research is expected to provide a

more comprehensive understanding of how organizational and individual factors interact in forming a strong OHS culture. In addition, the results of this study can be input for the management of PT PLN (Persero) ULP Tanah Jawa in formulating policies and strategies for improving occupational safety in a sustainable manner.

Problem Formulation

Based on the background that has been described, the problem formulation in this research is as follows:

1. Does organizational commitment have a positive and significant effect on OSH Culture at PT PLN (Persero) ULP Tanah Jawa?
2. Does supervision have a positive and significant effect on OSH Culture at PT PLN (Persero) ULP Tanah Jawa?
3. Does organizational commitment have a positive and significant effect on OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa?
4. Does supervision have a positive and significant effect on OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa?
5. Does OSH risk perception have a positive and significant effect on OSH Culture at PT PLN (Persero) ULP Tanah Jawa?
6. Does organizational commitment have a positive and significant effect on OSH Culture through OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa.
7. Does supervision have a positive and significant effect on OSH Culture through OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa?

Research Objective

The objectives of this research are to:

1. To test and analyze the effect of Organizational Commitment on OSH Culture at PT PLN (Persero) ULP Tanah Jawa.
2. To test and analyze the effect of Supervision on OSH Culture at PT PLN (Persero) ULP Tanah Jawa.
3. To test and analyze the effect of Organizational Commitment on OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa.
4. To test and analyze the effect of Supervision on OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa.
5. To test and analyze the effect of OSH risk perception on OSH culture at PT PLN (Persero) ULP Tanah Jawa.
6. To test and analyze the effect of Organizational Commitment on OSH Culture through OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa.
7. To test and analyze the effect of Supervision on OSH Culture through OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa.

Benefits of research

1. Theoretical Benefits

This research is expected to contribute to the development of science, particularly in the fields of human resource management (HR) and occupational safety and health (OHS) . Theoretically, the results of this research can:

- a. Adding empirical studies on the relationship between organizational commitment, supervision, perception of OHS risk, and OHS culture in the context of electricity service provider companies.

- b. Expanding understanding of the role of OHS risk perception as an intervening variable that bridges the influence of organizational factors on the formation of an occupational safety culture.
- c. To be a reference for further researchers who wish to research similar topics, both in the context of state-owned companies and other high-risk industries.

2. Practical Benefits

Practically, this research is expected to provide benefits to the following parties:

- a. For the Management of PT PLN (Persero) ULP Tanah Jawa The results of this study can be the basis for formulating strategies to improve OHS culture in the work environment, especially through strengthening organizational commitment , improving the quality of supervision , and establishing a positive OHS risk perception among employees. Thus, management can reduce the potential for work accidents and increase employee safety and productivity.
- b. For PLN Employees and the K3 Team: This research is expected to increase awareness and understanding of all employees regarding the importance of their role in creating a safe and healthy work environment. Furthermore, the research results can be used as evaluation material to improve work behavior and increase compliance with operational safety standards.
- c. For the Government and K3 Supervisory Institutions This research can be input for government agencies or supervisory institutions that have the authority to formulate policies and development programs related to the implementation of K3 culture in the electricity sector.
- d. For Further Researchers The results of this study can be used as a reference and methodological guideline for other researchers who are interested in further researching the factors that influence OHS culture or expanding this research model by adding other variables such as work motivation, work environment, or safety leadership .

Occupational Safety and Health (OHS)

According to Cooper (2016), OSH culture is the interaction between psychological (attitudes and perceptions), behavioral (actual actions), and situational (systems and policies) factors in an organization that influences work safety. According to Ramli (2017), OSH culture is the values, beliefs, and attitudes shared by members of an organization that determine the extent to which occupational safety and health are prioritized in every work activity.

Indicators of Occupational Safety and Health (OHS)

According to Cooper (2016):

- a. Compliance with OSH procedures
- b. Awareness and responsibility for safety
- c. Active participation in OSH programs
- d. Communication and reporting of work risks
- e. Management support for safety practices

Factors Influencing Occupational Safety and Health (OHS)

According to Cooper (2018), the factors that shape OSH culture include three main elements:

- a. Psychological: individual perceptions and attitudes towards safety.
- b. Behavioral: actual actions in implementing OSH.
- c. Situational: systems, organizational structure, and management policies.

Organizational Commitment

According to Robbins & Judge (2019), organizational commitment is the attitude of employees that reflects loyalty, attachment, and desire to maintain a relationship with the organization. According to Meyer & Allen (2017), organizational commitment is a psychological condition that binds employees to remain part of the organization and influences their decision to continue working in the organization.

Indicators of Organizational Commitment

According to Meyer & Allen (2017):

- a. Loyalty to the organization
- b. Compliance with organizational rules
- c. Desire to contribute to organizational goals
- d. Sense of responsibility towards the organization
- e. Willingness to remain part of the organization

Supervision

According to Robbins & Coulter (2019), supervision is the activity of ensuring employees' work aligns with organizational goals through systematic observation and evaluation. According to Mangkunegara (2017), supervision is the process of controlling employee activities to remain in accordance with plans, procedures, and applicable work standards.

Indicators of Supervision

According to Robbins & Coulter (2019):

- a. Monitoring the implementation of OSH procedures
- b. Evaluation of employee compliance
- c. Provision of guidance or correction regarding work behavior
- d. Consistency of supervision by superiors
- e. Enforcement of work safety standards

Occupational Safety and Health Risk Perception

According to Zohar (2018), OSH risk perception is a personal evaluation of workplace safety threats and the tendency to take preventive actions. According to Cox & Cheyne (2017), risk perception is employees' subjective understanding of the level of danger and consequences of the work activities they perform.

Indicators of Occupational Safety and Health Risk Perception

According to Zohar (2018):

- a. Awareness of potential workplace hazards
- b. Assessment of the likelihood of accidents

- c. Concern for safety procedures
- d. Readiness to take preventive actions
- e. Personal sense of responsibility for safety

Conceptual Framework

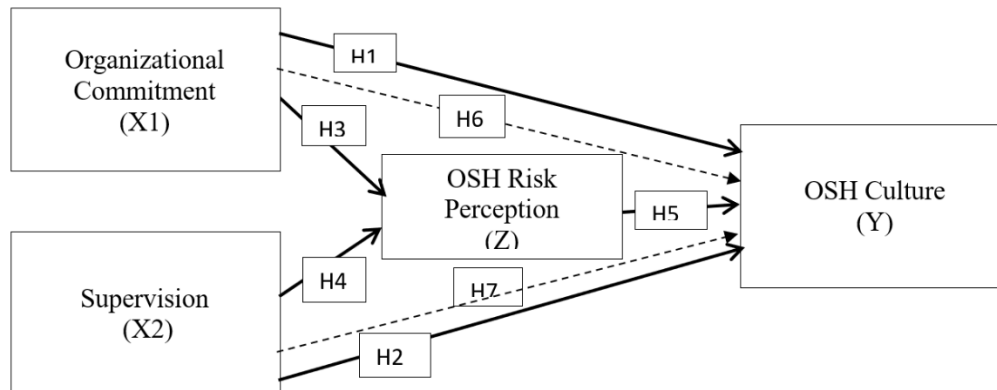


Figure I Conceptual Framework

Research Hypothesis

Based on the framework of thought and the relationship between variables, the research hypothesis are :

- H1 Organizational commitment has a positive and significant effect on OSH Culture at PT PLN (Persero) ULP Tanah Jawa.
- H2 Supervision has a positive and significant effect on OSH Culture at PT PLN (Persero) ULP Tanah Jawa.
- H3 Organizational commitment has a positive and significant effect on OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa.
- H4 Supervision has a positive and significant effect on OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa.
- H5 OSH risk perception has a positive and significant effect on OSH culture at PT PLN (Persero) ULP Tanah Jawa.
- H6 Organizational commitment has a positive and significant effect on OSH culture through OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa.
- H7 Supervision has a positive and significant effect on OSH culture through OSH Risk Perception at PT PLN (Persero) ULP Tanah Jawa.

Types of Research Method

This research is quantitative with a causal approach , aiming to determine the effect of one variable on another. This study uses Partial Least Squares (PLS-SEM) analysis of intervariable relationships to test the conceptual model (Hair, Hult, Ringle, & Sarstedt, 2018).

Research Location and Time

This research was conducted at the Office of PT PLN (Persero) ULP Tanah Jawa, located at: Jl. Suhimahasar No.21, Tanjung Pasir Village, Tanah Jawa District, Simalungun Regency 21181. The research time starts from November to December 2025.

Population and Sample

According to Sekaran & Bougie (2018), a population is the entire subject or object that has certain characteristics that are the focus of the research. In this study, the population is all employees of PT PLN (Persero) ULP Tanah Jawa involved in the implementation of work safety (OSH) procedures. This population was chosen because they are directly involved in operational activities relevant to the research variables, namely organizational commitment, supervision, OSH risk perception, and OSH culture. Population size: 57 people.

A sample is a part of the population that represents the entire population in the research (According to Sugiyono 2018). Given the relatively small population size, this study uses a saturated sampling (census sampling) technique, meaning the entire population is used as the research sample. Thus, the research sample size is the same as the population size, which is 57 respondents.

Data collection technique

Data collection techniques are the methods used by researchers to gather the information needed for research. According to Sekaran & Bougie (2018), data collection techniques play a crucial role in ensuring that the information obtained is accurate, relevant, and can be analyzed scientifically. In this study, data were collected through a closed questionnaire distributed to the entire sample, namely 57 employees of PT PLN (Persero) ULP Tanah Jawa . The questionnaire was used because it is effective in measuring respondents' perceptions, attitudes, and opinions quantitatively (Sekaran & Bougie, 2018).

Research Data Sources

In this study, the data used comes from primary sources . According to Sekaran & Bougie (2018), primary data is data obtained directly from respondents through systematic information collection in accordance with the research objectives. Primary data is original and specific to answer the research problem, thus providing accurate and relevant information.

Operational Definition of Variables

The operational definition of a variable is the breakdown of each variable into empirically measurable indicators. According to Sugiyono (2018), an operational definition helps researchers observe, measure, and analyze abstract variables quantitatively. With an operational definition, each variable has concrete indicators that serve as the basis for developing research instruments, such as questionnaires. In this study, the operational definitions of the variables were compiled based on the 2018 expert understanding and elaborated into relevant indicators for measurement, as follows:

Table 1 Operational Definition of Variables

Variables	Definition	Indicator
Occupational Safety and Health (OHS) (Y)	According to Cooper (2016), OSH culture is the interaction between psychological (attitudes and perceptions), behavioral (actual actions), and situational (systems and policies) factors in an organization that influences work safety.	According to Cooper (2016): a. Compliance with OSH procedures b. Awareness and responsibility for safety c. Active participation in OSH programs d. Communication and reporting of work risks e. Management support for safety practices
Organizational Commitment (X1)	According to Meyer & Allen (2017), organizational commitment is a psychological condition that binds employees to remain part of the organization and influences their decision to continue working in the organization.	According to Meyer & Allen (2017): a. Loyalty to the organization b. Compliance with organizational rules c. Desire to contribute to organizational goals d. Sense of responsibility towards the organization e. Willingness to remain part of the organization
Supervision (X2)	According to Robbins & Coulter (2019), supervision is the activity of ensuring employees' work aligns with organizational goals through systematic observation and evaluation.	According to Robbins & Coulter (2019): a. Monitoring the implementation of OSH procedures b. Evaluation of employee compliance c. Provision of guidance or correction regarding work behavior d. Consistency of supervision by superiors e. Enforcement of work safety standards
Occupational Safety and Health Risk Perception (Z)	According to Zohar (2018), OSH risk perception is a personal evaluation of workplace safety threats and the tendency to take	According to Zohar (2018): a. Awareness of potential workplace hazards b. Assessment of the

	preventive actions.	likelihood of accidents c. Concern for safety procedures d. Readiness to take preventive actions e. Personal sense of responsibility for safety
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Data Analysis Techniques

Data analysis techniques are a crucial step in quantitative research, aiming to examine the relationships between variables based on the collected data. In this study, data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the aid of SmartPLS 3.0 software.

According to Hair, Hult, Ringle, and Sarstedt (2018), PLS-SEM is an analytical approach used to test complex structural models, particularly when the data is not normally distributed and the sample size is relatively small. PLS-SEM is more prediction-oriented than theory confirmation, making it suitable for exploratory research and model development.

variance-based software tool used to estimate the relationships between latent variables in structural models. This method is suitable because it can test models with both reflective and formative indicators simultaneously and does not require strict assumptions of normal data distribution.

PLS-SEM in SmartPLS 3.0 consists of two main stages, namely:

1. Measurement Model Evaluation (Outer Model) This stage aims to assess the validity and reliability of the construct. According to Hair et al. (2018), the measurement model is evaluated through:
 - a. Convergent Validity (seen from *the loading factor value* and *Average Variance Extracted/AVE*)
 - b. Discriminant Validity (seen from *cross loading* and *Fornell-Larcker Criterion*)
 - c. Reliability Test (seen from *the Composite Reliability* and *Cronbach's Alpha values*)
2. Structural Model Evaluation (Inner Model)
 According to Ghozali & Latan (2018), this stage aims to assess the relationship between latent variables based on *the path coefficient* and *R-square values* . Significance testing is carried out using the bootstrapping technique, which produces *t-statistic* and *p-value* values to determine whether the relationship between variables is significant or not.

Results and Discussion

Outer Model Analysis

The details of the relationship between latent and manifest variables can be determined using measurement model testing, also known as external model testing. This test has reliability, discriminant validity, and convergent validity.

Convergent Validity

The loading factor indicates this test, the cutoff value is 0.7, and the extracted cutoff value is Average.Variance.(AVE) set at 0.5; values above this indicate validity. This shows that if the indicator value > 0.7 is able to explain the construct variable, then the indicator value is considered valid. The structural model of the study is depicted in the following figure:

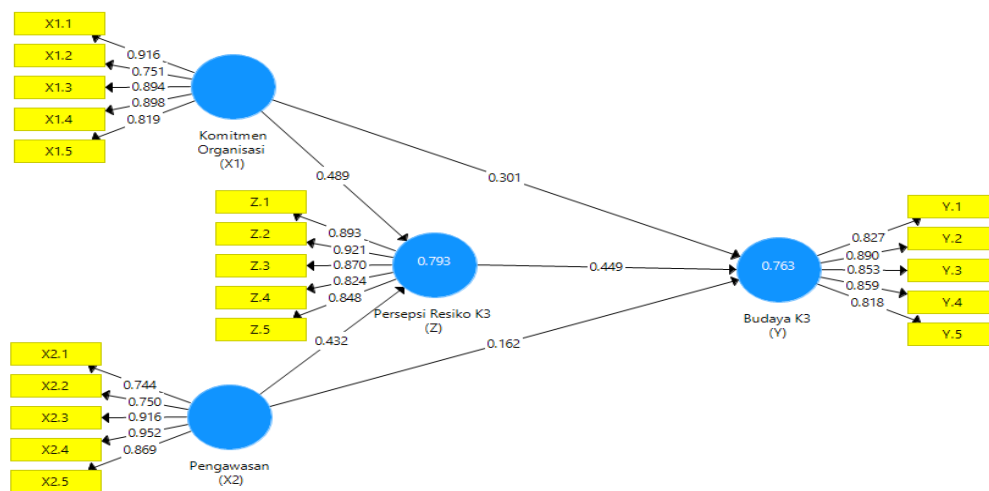


Figure 2. Outer Model

Source : Smart PLS 3.3.3

The Smart PLS output for loading factor gives the results in the following table: Outer Loadings In this study there is an equation and the equation consists of two substructures.

For substructure 1

$$Z = b_1X_1 + b_2X_2 + e_1$$

$$Z = 0.243 + 0.652 + e_1$$

For substructure 2

$$Y = b_4X_1 + b_5X_2 + b_7Z + e_2$$

$$Y = 0.090 + 0.429 + 0.419 + e_2$$

Table 2. Outer Loadings

	K3 Culture _(Y)	Organizational Commitment _(X1)	Supervision_(X2)	Occupational Health and Safety Risk Perception _(Z)
X1.1		0.916		
X1.2		0.751		
X1.3		0.894		
X1.4		0.898		
X1.5		0.819		
X2.1			0.744	
X2.2			0.750	
X2.3			0.916	
X2.4			0.952	
X2.5			0.869	
Y.1	0.827			
Y.2	0.890			
Y.3	0.853			
Y.4	0.859			
Y.5	0.818			
Z.1				0.893
Z.2				0.921
Z.3				0.870
Z.4				0.824
Z.5				0.848

Source : Smart PLS 3.3.3

The results of the outer loadings test indicate that all indicators in the variables Organizational Commitment, Supervision, OHS Culture, and OHS Risk Perception have outer loading values above 0.70. This indicates that all indicators adequately reflect their constructs and meet convergent validity criteria. Therefore, all indicators are declared valid and suitable for use in subsequent model analysis.

Discriminant Validity

The next step in the analysis is to determine which data is valid in terms of discriminant validity. The goal is to determine whether the cross-loading value is greater than the other variables, thereby determining the indicator's sensitivity to height correction. This is related to the construction of the table below, which presents the validity assessment results as follows:

Table 3 . Discriminant Validity

	K3 Culture (Y)	Organizational Commitment (X1)	Supervision_(X2)	Occupational Health and Safety Risk Perception_(Z)
X1.1	0.714	0.916	0.840	0.826
X1.2	0.794	0.751	0.645	0.796
X1.3	0.688	0.894	0.734	0.692
X1.4	0.656	0.898	0.746	0.674
X1.5	0.680	0.819	0.759	0.682
X2.1	0.697	0.672	0.744	0.569
X2.2	0.661	0.556	0.750	0.625
X2.3	0.668	0.804	0.916	0.839
X2.4	0.713	0.799	0.952	0.839
X2.5	0.713	0.849	0.869	0.740
Y.1	0.827	0.701	0.623	0.674
Y.2	0.890	0.657	0.652	0.695
Y.3	0.853	0.653	0.734	0.711
Y.4	0.859	0.747	0.707	0.812
Y.5	0.818	0.762	0.717	0.701
Z.1	0.763	0.804	0.801	0.893
Z.2	0.773	0.775	0.790	0.921
Z.3	0.751	0.765	0.702	0.870
Z.4	0.669	0.696	0.681	0.824
Z.5	0.739	0.725	0.757	0.848

Source : Smart PLS 3.3.3

The results of the discriminant validity test indicate that each indicator has the highest loading value on the construct it measures compared to other constructs. This is evident from the cross-loading values of each indicator, which are higher than those of the original variable. Thus, all constructs in this research model meet the discriminant validity criteria and are able to differentiate between variables effectively.

Composite reliability

Each variable in a composite reliability study is compared for its reliability value; if the variable's value is higher than 0.60, the study is considered reliable; if it is between 0.60 and 0.7, it is not. The table below shows the various blocks used to assess the validity and reliability of the study, including the AVE value, composite reliability, and Coranbach's alpha value:

Table 4 . Construct Reliability and Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
K3 Culture _(Y)	0.904	0.928	0.722
Organizational Commitment _(X1)	0.909	0.933	0.736
Supervision _(X2)	0.901	0.928	0.723
Occupational Health and Safety Risk Perception _(Z)	0.921	0.941	0.760

Source : Smart PLS 3.3.3

The test results show that all variables have Cronbach's Alpha values and composite reliability values above 0.70, thus all constructs are considered reliable. Furthermore, the AVE value for each variable also exceeds 0.50, indicating that all constructs meet convergent validity criteria. Therefore, all variables in this study are suitable for further analysis.

Inner Model Analysis

To ensure the developed fundamental model is reliable and accurate, the structural model, or deep model, is evaluated. A number of markers, including the following, indicate the stages of scrutiny performed during the primary model assessment:

Coefficient of Determination (R2)

Based on the data processing that has been carried out using the SmartPLS 3.0 program, the R Square value is obtained as follows:

Table 4. R Square Results

	R Square	Adjusted R Square
K3 Culture _(Y)	0.763	0.750
Occupational Health and Safety Risk Perception _(Z)	0.793	0.785

Source : Smart PLS 3.3.3

The R Square test results show that the OHS Culture variable has an R Square value of 0.763, which means that 76.3% of the variation in OHS Culture can be explained by the independent variables in the model, while the remaining 23.7% is explained by other factors outside the research model. Meanwhile, OHS Risk Perception has an R Square value of 0.793, which shows that 79.3% of the variation can be explained by the variables in the model, and the remaining 20.7% is influenced by other variables outside the research.

Hypothesis Testing

The relationship between the variables and data in this example must be confirmed after the model is created. T-Statistics and P-Values are examined to conduct statistical analysis in this case study. To determine whether the P-Values are < 0.05 and T-Insights values are > 1.96, speculation is used. The impact of the Road Impact Coefficient over time is as follows:

Table .5 . Path Coefficients (Direct Effect)

	Original Sample (O)	T Statistics (O/STDEV)	P Values	Results
Organizational Commitment _(X1) -> OHS Culture _(Y)	0.301	1,679	0.047	Accepted
Organizational Commitment _(X1) -> Occupational Health and Safety Risk Perception _(Z)	0.489	3,949	0,000	Accepted
Supervision_ (X2) -> K3 Culture _(Y)	0.162	0.925	0.178	Rejected
Supervision_ (X2) -> K3 Risk Perception _(Z)	0.432	3,349	0,000	Accepted
K3 Risk Perception _(Z) -> K3 Culture _(Y)	0.449	2,158	0.016	Accepted

Source : Smart PLS 3.3.3

1. The Influence of Organizational Commitment on OHS Culture
Organizational commitment has a positive and significant effect on OHS culture, as indicated by a coefficient value of 0.301 with a T-statistic of 1.679 and P-values of 0.047. Thus, the hypothesis is accepted.
2. The Influence of Organizational Commitment on Occupational Health and Safety Risk Perception
Organizational commitment has a positive and significant effect on perception of OHS risk, with a coefficient of 0.489, a T-statistic of 3.949, and a P-value of 0.000. Therefore, the hypothesis is accepted.
3. The Influence of Supervision on Occupational Health and Safety Culture
Supervision has a positive but insignificant effect on OHS culture, as indicated by a coefficient of 0.162, a T-statistic of 0.925, and a P-value of 0.178. Thus, the hypothesis is rejected.
4. The Influence of Supervision on Occupational Health and Safety Risk Perception
Supervision has a positive and significant effect on perception of OHS risk, with a coefficient of 0.432, a T-statistic of 3.349, and a P-value of 0.000. Therefore, the hypothesis is accepted.
5. The Influence of Occupational Health and Safety Risk Perception on Occupational Health and Safety Culture
Occupational health and safety risk perception has a positive and significant effect on occupational health and safety culture, as indicated by a coefficient of 0.449, a T-statistic of 2.158, and a P-value of 0.016. Thus, the hypothesis is accepted.

Table 6. Path Coefficients (Indirect Effect)

	Original Sample (O)	T Statistics (O/STDEV)	P Values	Results
Organizational Commitment (X1) -> Occupational Health and Safety Risk Perception (Z) -> Occupational Health and Safety Culture (Y)	0.220	1,823	0.034	Accepted
Supervision (X2) -> Occupational Health and Safety Risk Perception (Z) -> Occupational Health and Safety Culture (Y)	0.194	1,838	0.033	Accepted

Source : Smart PLS 3.3.3

6. The Influence of Organizational Commitment on OHS Culture through OHS Risk Perception

Organizational commitment has a positive and significant influence on OHS culture through OHS risk perception, as indicated by a coefficient value of 0.220 with a T-statistic of 1.823 and P-values of 0.034. This indicates that OHS risk perception is able to mediate the influence of organizational commitment on OHS culture, so the hypothesis is accepted.

7. The Effect of Supervision on OHS Culture through OHS Risk Perception

Supervision has a positive and significant effect on OHS culture through OHS risk perception, with a coefficient of 0.194, a T-statistic of 1.838, and P-values of 0.033. Thus, OHS risk perception acts as a mediating variable in the relationship between supervision and OHS culture, so the hypothesis is accepted.

Conclusion

After obtaining the hypothesis results, the conclusions of this study are as follows:

1. Organizational commitment has been proven to have a positive and significant influence in improving OHS culture.
2. Organizational commitment can significantly increase the perception of OHS risks.
3. Supervision does not have a significant impact on OHS culture.
4. Supervision has a positive and significant effect on increasing perceptions of OHS risks.
5. OHS risk perception plays an important role in significantly strengthening OHS culture.
6. K3 risk perception is able to significantly mediate the influence of organizational commitment on K3 culture.
7. OHS risk perception acts as a significant mediator in the relationship between supervision and OHS culture.

References

Cox, S., & Cheyne, A. (2017). Assessing safety culture in offshore environments. *Safety Science*, 111(4), 45–54. <https://doi.org/10.1016/j.ssci.2017.01.004>

- Ghozali, I., & Latan, H. (2018). *Partial Least Squares: Konsep, metode, dan aplikasi menggunakan program SmartPLS 3.0 (2nd ed.)*. Semarang: Badan Penerbit Universitas Diponegoro.
- Heru Fajrin, B Mesra (2024), *Improving Employee Performance Through Work Motivation*, Proceedings of the International Conference on Multidisciplinary Science (INTISARI)
- KF Ferine, R Aditia, MF Rahmadana (2021), *An empirical study of leadership, organizational culture, conflict, and work ethic in determining work performance in Indonesia's education authority*, Helyon
- Mangkunegara, A. P. (2017). *Manajemen Source daya manusia perusahaan*. Bandung: Remaja Rosdakarya.
- Meyer, J. P., & Allen, N. J. (2017). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 27(2), 95–102. <https://doi.org/10.1016/j.hrmr.2016.11.003>
- MN Ilham, MI Indrawan, HM Ritonga (2022), *An Effect of Job Characteristics and Interpersonal Relations Organizational Commitments in PT. AEP (Anglo Eastern Plantation) Ukindo Blankahan Estate*, International Journal of Economic, Technology and Social Sciences (Injects)
- Nuraini, S. (2022). Pengaruh Organizational Commitment terhadap Budaya Keselamatan dan Kesehatan Kerja (K3) pada Perusahaan Manufaktur. *Jurnal Manajemen dan Keselamatan Kerja*, 7(2), 45–56.
- Peraturan Menteri Ketenagakerjaan Republik Indonesia Nomor 5 Tahun 2018 tentang Keselamatan dan Kesehatan Kerja Lingkungan Kerja.
- PT PLN (Persero). (2023). *Laporan Tahunan Keselamatan dan Kesehatan Kerja (K3)*. Jakarta: PT PLN (Persero).
- Rahmadani, T., & Arifin, M. (2020). Peran Supervision dalam Peningkatan Kesadaran K3 di Lingkungan Kerja. *Jurnal Keselamatan dan Kesehatan Kerja Indonesia*, 9(1), 22–31.
- Robbins, S. P., & Coulter, M. (2019). *Management (14th ed.)*. Harlow, England: Pearson Education Limited.
- Robbins, S. P., & Judge, T. A. (2019). *Organizational behavior (18th ed.)*. Harlow, England: Pearson Education Limited.
- S Rahayu –(2018), *Pengaruh Motivasi Dan Disiplin Terhadap Prestasi Kerja Karyawan Di Pt. Langkat Nusantara Kepong Kabupaten Langkat, JUMANT*
- Sekaran, U., & Bougie, R. (2018). *Research methods for business: A skill-building approach (7th ed.)*. Hoboken, NJ: John Wiley & Sons.
- Setiawan, A. (2021). Persepsi Risiko sebagai Faktor Psikologis dalam Penerapan Budaya Keselamatan Kerja. *Jurnal Psikologi Industri dan Organisasi*, 5(3), 134–145.
- Sugiyono. (2018). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta.
- Undang-Undang Republik Indonesia Nomor 1 Tahun 1970 tentang Keselamatan Kerja.

- Zohar, D. (2018). Safety climate: Conceptual and measurement issues. *Journal of Safety Research*, 66(3), 123–132. <https://doi.org/10.1016/j.jsr.2018.02.002>
- Zulfiqar, F., Putri, D., & Santoso, H. (2021). Organizational Commitment dan Penerapan OSH Culture di Perusahaan Energi. *Jurnal Administrasi dan Keselamatan Kerja*, 10(4), 88–97.